

What Is Claimed Is:

1. A microprocessor system comprising:
 - a plurality of modules including a microprocessor and at least one storage module for storing code and data for the microprocessor, at least one of the modules storing a serial number of the at least one module in a non-exchangeable manner;
 - an arrangement for storing a code number, the code number being obtained from the serial number by using an encryption method, and for storing information required to calculate the serial number from the code number,
 - wherein the microprocessor is adapted to calculate a serial number from the code number on the basis of the information, to compare the calculated serial number to the stored serial number, and to execute or not execute at least part of the code as a function of a result of the comparison.
2. The microprocessor system according to claim 1, wherein the encryption method is asymmetrical, the code number is calculated from the serial number with the aid of a secret key, and the information includes a public key as well as a program code for calculating the serial number from the code number.
3. The microprocessor system according to claim 2, wherein one of the at least one module identified by the serial number is a storage module.
4. The microprocessor system according to claim 3, wherein the code number is stored in a save storage module as the serial number.
5. The microprocessor system according to claim 3, wherein the storage module is an electrically rewritable, non-volatile memory, and the code to be executed if the calculated and the stored serial numbers do not match includes a command for deletion of the storage module.
6. The microprocessor system according to claim 1, wherein one of the at least one module identified by the serial number is the microprocessor.

7. The microprocessor system according to claim 1, wherein the information required to calculate the serial number from the code number is stored in a different storage module than the code number.
8. The microprocessor system according to claim 7, wherein the different storage module is connected to the microprocessor in a non-separable manner.
9. The microprocessor system according to claim 1, wherein at least two of the modules are each identified by a serial number and the code number is obtained by joint encryption of the serial numbers.
10. A method for detecting an exchange of a module, identified by a serial number, in a microprocessor system, the method comprising:
 - storing, in the microprocessor system, a code number, which is obtained from the serial number by using an encryption method, and storing information required for calculating the serial number from the code number;
 - reading the code number and calculating an unencrypted serial number from the code number with the aid of the information;
 - comparing the decrypted serial number thus obtained with the serial number of the module; and
 - detecting an exchange of the module if the serial number of the module does not match the decrypted serial number.
11. The method according to claim 10, wherein an unsymmetrical encryption method is used and a public key of the encryption method is included in the information required to calculate the serial number from the code number.
12. The method according to claim 10, wherein the module is a storage module of the microprocessor system.
13. The method according to claim 12, wherein the code number is stored in the same storage module as the serial number.

14. The method according to claim 12, further comprising deleting a content of the storage module if an exchange of the module has been detected.

15. The method according to claim 10, wherein the module includes a microprocessor of the microprocessor system.

16. The method according to claim 10, wherein at least the information required for calculating the serial number is stored in a different storage module than the code number.

17. The method according to claim 10, wherein the method is used for a plurality of modules of the microprocessor system and the code number is obtained by a joint encryption of serial numbers of the plurality of modules.

18. The method according to claim 10, wherein steps of the method are executed upon each start-up of the microprocessor system.

19. The method according to claim 10, wherein steps of the method are periodically executed during operation of the microprocessor system.